

City Council

Study Session Agenda

**September 8, 2009
Library Meeting Room
951 Spruce Street
7:00 PM**

- | | | |
|-----------------------|------|---|
| 7:00 p.m. | I. | Call to Order |
| 7:00 p.m. – 7:30 p.m. | II. | Update/Discussion – 36 Commuting Solutions Presentation |
| 7:30 p.m. – 8:00 p.m. | III. | Update/Discussion – US 36 TIGER Grant |
| 8:00 p.m. | IV. | City Manager Items |
| 8:05 p.m. | V. | Agenda Items for next meeting September 22 |
| 8:15 p.m. | VI. | Adjourn |

COUNCIL COMMUNICATION

TO: MAYOR AND CITY COUNCIL
FROM: MALCOLM FLEMING, CITY MANAGER
DATE: SEPTEMBER 8, 2009
SUBJECT: UPDATE/DISCUSSION – 36 COMMUTING SOLUTIONS PRESENTATION
ORIGINATING DEPARTMENT: CITY MANAGER’S OFFICE

SUMMARY:

Audrey Debarros, Executive Director of 36 Commuting Solutions (previous US 36 TMO) will be presenting information on 36 Commuting Solutions, their mission, future work efforts and the current advocacy campaign to “Help us fix US 36.” A power point presentation is attached along with Boulder Turnpike History, written materials regarding “Help us fix US 36” and two print articles related to funding improvements along US 36.

ATTACHMENT(S):

1. Power Point Presentation
2. Boulder Turnpike History
3. Help us Fix Us 36 materials
4. Westminster Window Article
5. Daily Camera Article



SUBJECT UPDATE/DISCUSSION – 36 COMMUTING
SOLUTIONS PRESENTATION

AGENDA ITEM

II

Louisville City Council Study Session

September 8, 2009



Tonight's Agenda:

- Backgrounder
- Completion of the U.S. 36 EIS
- U.S. DOT TIGER Grant Application
- Help Us Fix U.S. 36 Campaign
- Join us to take action



36 Commuting Solutions Backgrounder

- Mission Statement: enhance the mobility of commuters along the U.S. 36 corridor for today and the future
- Long standing role in U.S. 36 advocacy and mobility



2009 Completion of the U.S. 36 EIS

- Milestone for the corridor
- Poised for state and federal funding
 - Multi-modal commute options:
 - HOV/HOT lane in each direction
 - Bus Rapid Transit (BRT)
 - Corridor-wide bikeway
 - Replace ten outdated bridges/interchanges
 - Auxiliary lanes east/west Davidson Mesa



2009 Completion of the U.S. 36 EIS

- Cost: \$1.3 Billion
- Only \$711 million in RTP through 2035
- U.S. 36 Rebuilt in phases
- Phase One Improvements (\$550 million)
 - Managed lane in each direction
 - Bus Rapid Transit
 - Commuter bikeway
 - TDM



U.S. DOT TIGER Grant Application

(Transportation Investments Generating Economic Recovery)

- \$1.5 B Available
- Applications due September 15, 2009
- Projects selected January 15, 2010
- Highly competitive, 100 applications
- “A” Game



U.S. DOT TIGER Grant Application

- Packages of \$100 and \$200 million
- \$30M CDOT and \$25M RTD local funds
- Funding would:
 - extend managed lane to Broomfield or Interlocken
 - construct portion of U.S. 36 bikeway



Help Us Fix U.S. 36

- Branded campaign creates focal point for entire corridor
- Tagline: Pioneering sustainable travel options
- Proactive, demonstrate need and ready to go
- Provides an opportunity for citizens to participate



Join Us to Take Action

- Funding needed now to expedite U.S. 36 investments
- We need your help to expand the coalition
 - Educate Louisville residents to the Help Us Fix U.S. 36 campaign
 - Constituent communication- email, newsletters, etc.
 - Identify transportation leaders in Louisville
 - On-going campaign



Join Us to Take Action

Audrey DeBarros, Executive Director

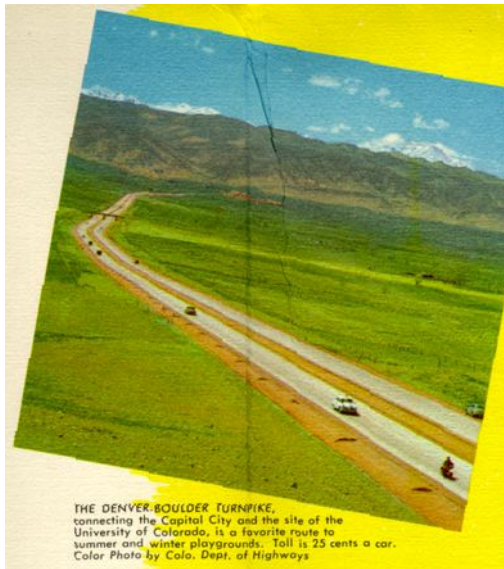
36 Commuting Solutions

audrey@36commutingsolutions.org

303.439.8517



Boulder Turnpike History



The Denver metro area's highway system had a big problem up through the 1940s: There was no direct route between Denver and Boulder. The only way to get from Denver to Boulder was via U.S. 287 north to Lafayette and then either South Boulder Rd. or Arapahoe Ave. (SH 7) west to Boulder.

The original proponent of the Boulder Turnpike was Prof. Roderick L. Downing of the University of Colorado at Boulder's School of Engineering. In fact, he would often take his students out to the route he proposed to practice surveying.

Eventually, most Boulder civic organizations, the University and prominent citizens signed on to the project, expressing their interest in direct regional connection. The Legislature finally passed a bill

authorizing the Colorado Department of Highways (CDH) to build a road and mandated that it operate as a toll road to recoup the cost of construction. The state hired Kansas-based consulting firm Howard, Needles, Tammen, and Bergendoff (HNTB) to conduct a feasibility study. Unfortunately, the results said that the road would not pay for its cost and upkeep over a 30-year period.

Despite the report, support reached a fever pitch. Bonds totaling \$6.3M were sold, to be repaid over 30 years. The roadway officially opened on January 19, 1952. The Boulder Turnpike went from Federal Blvd. north of Denver to 28th St. in Boulder. It was built to freeway standards with fully controlled access. Each direction boasted two 12-foot wide lanes, a 10-foot shoulder, plus a 20-foot depressed median. There were 12 major structures, including toll booths, built on the spot. This was the first project awarded by CDH of this magnitude.



The tollbooths were located under the Wadsworth overpass at the Broomfield interchange. It cost 25¢ to travel from Federal Blvd. all the way to Boulder, 10¢ from Federal Blvd. to Broomfield and 15¢ from Broomfield to Boulder. Other than access points in Denver and Boulder, the Broomfield interchange was the only way to get on and off the Turnpike. Toll booth operators befriended a stray dog they

called Shep. The pooch lived at the tollbooth near the Broomfield exit for years. After he died, a tombstone was donated for his grave in a fenced area near his old tollbooth. The tombstone remains to this day.

The original Boulder Turnpike faced a serious disadvantage because it was not directly connected to the Denver highway system. Its end at Federal Blvd. and the north end of Denver's new Valley Highway were not directly connected by the SH 382 highway until 1956.

Despite such an obstacle, traffic counts along the Boulder Turnpike far exceeded expectations. The HNTB consulting report was ultraconservative. It predicted 3,170 vehicles per day for 1960-1980, but actual counts skyrocketed to 13,774 vehicles per day in 1966. The toll revenue was so high that on September 14, 1967, the Boulder Turnpike became free and was renamed U.S. 36. The toll booths were removed immediately thereafter. The tolls had successfully paid for \$6.3M in bonds, \$2.36M in interest, roadway resurfacing and realignment at Federal Blvd. in just over 15 years, 15 years ahead of schedule. It is believed at time that the Boulder Turnpike was the only public toll road to ever become free.

Today, the Boulder Turnpike is one of Colorado's most heavily traveled highways, carrying 90,000 vehicles each day. It is the lifeline of the Northwest Region, carrying goods, people and ideas throughout the area and beyond. Just as it took the pioneering spirit of U.S. 36 residents, businesses and communities to build U.S. 36 in the first place, it will require the same level of visionary leadership and effort to improve U.S. 36 for today and the future.

Pioneering sustainable travel options

THE U.S. 36 CORRIDOR

The U.S. 36 corridor is the transportation lifeline of our northwest Denver metropolitan region. It supports our workforce and businesses by serving as a conduit for transporting goods and services, while residents and visitors use it to access social opportunities, entertainment and recreation. A safe and reliable transportation network, with U.S. 36 as its backbone, is essential to the health of our economy and the health of our communities.

Colorado is ranked No. 1 in the country for labor and growth prospects and the sixth-best state for business.
-Forbes, 2008

- **U.S. 36 is an economically significant corridor** that has spurred dramatic economic development and employment within the state since it was constructed in the early 1950s.
- **It is anchored by Denver and Boulder**, two of the largest employment centers in the state. The corridor hosts global companies and a high concentration of prominent industries such as renewable energy, aerospace, bioscience, high tech, federal government, higher education and manufacturing.
- **U.S. 36 boasts impressive employment statistics.** The Denver metro area has 160,150 businesses and 1,227,650 employees. Of these, the U.S. 36 corridor has 26,765 businesses and 200,278 jobs, which represents 16.7% of businesses and 16.3% of jobs region-wide.
- **Since 2004, Colorado's economy has outperformed the national economy** in areas such as employment, population and income growth. State economists agree that strategic development of the U.S. 36 corridor will help Colorado continue to outperform the U.S. economy for the foreseeable future.

THE PROBLEM

Unfortunately, the economic growth and prosperity of the U.S. 36 corridor is threatened by our aging transportation system. Our roads and bridges were never designed to meet our modern daily capacity and load demands, while maintenance has fallen far behind – and Colorado does not have the funds to fix the problems. Without increased resources, it will not be possible to simply maintain the current condition of U.S. 36, let alone improve our vital transportation system, and that's a problem for the following reasons:

- **Traffic congestion is increasing.** U.S. 36 commuters experience 3-4 hours of severe congestion every day, and traffic will slow to a virtual standstill if there is measurable snowfall or an accident.
- **Demand for transit is unmet.** Every day, 15,000 commuters use transit along U.S. 36, but more commuters want to ride the bus. U.S. 36 already has the highest transit ridership in the Regional Transportation District (RTD) system.
- **It's getting worse.** By the year 2035, population along U.S. 36 is expected to increase by 28% while employment will grow by 53%.
- **U.S. 36 is aging.** Colorado roads are designed to last 20 years, but U.S. 36 has sections that are more than 50 years old. One-third of the asphalt on U.S. 36 has less than 5 years of service life remaining.
- **Our bridges are crumbling.** Ten bridges along U.S. 36 are rated "structurally deficient" or "functionally obsolete," according to state and federal standards.
- **The time to act is now.** If no action is taken to improve mobility along U.S. 36, existing traffic congestion will worsen and spill over onto adjacent arterials and into neighborhoods, resulting in more congestion, longer delays, safety hazards and poorer air quality throughout the corridor.

THE SOLUTION

The long-term transportation plan for U.S. 36, called the Preferred Alternative, identifies a sustainable, multi-modal solution that includes Bus Rapid Transit, HOV/HOT lanes and a corridor-wide commuter bikeway.

- **The U.S. 36 Preferred Alternative will be a national model** of an innovative, integrated multi-modal transportation system.
- **The cost of these critical improvements** is an estimated \$1.3 billion, but there is only \$711 million available for U.S. 36 over the next 20 years according to current projections, and that money cannot be accessed until 2021, at the earliest.

THE OPPORTUNITY

Two critical funding opportunities, either of which could help build a portion of the U.S. 36 plan, are currently on the table. Without these funds, we will have to wait 10 years for another significant funding opportunity. We need action now to bring meaningful transportation investments to U.S. 36. Here's what you can do to help:

- **Contact your local, state and federal elected officials** and urge them to support U.S. 36 transportation improvements.
- **Donate to the Help Us Fix U.S. 36 campaign.** Help Us Fix U.S. 36 is a grassroots political campaign spearheaded by 36 Commuting Solutions to raise awareness of and garner funding for necessary U.S. 36 transportation improvements.
- **Become a transportation leader.** Join the 36 Commuting Solutions coalition and educate others in your community about the problem.

About the Preferred Alternative:

In July 2008, FTA, FHWA, RTD, CDOT and the U.S. 36 coalition agreed on a package of multi-modal improvements that will be the Preferred Alternative in the Final Environmental Impact Statement (EIS). The following paragraphs describe the components of this multi-modal recommendation:

Bus Rapid Transit (BRT)

Bus Rapid Transit, as the name suggests, will offer rapid service from Union Station in Denver to Boulder and points in between. The new BRT line will include ramp and side-loading stations, supported by parking facilities and local transit services with specific premium components.

HOT/HOV Expansion with Transit Priority

The plan calls for one buffer-separated, managed lane in each direction of U.S. 36 that extends the existing HOT lane on I-25 to Foothills Parkway in Boulder. While this lane will be open to High Occupancy Vehicles and Single Occupancy Vehicle toll users, transit will have the highest priority.

Bikeway

Cyclists would gain a new 18-mile commuter bikeway, to be constructed adjacent to the highway or connecting to existing bicycling facilities.

Sustainable Project Benefits

- The multi-modal plan will reduce Vehicle Miles Traveled (VMT) and carbon emissions while increasing energy independence.
- Portions of the overall project can be built in phases as funding becomes available.
- Expedited construction of the HOV/HOT lane will result in immediate mobility improvements.
- The corridor-wide bikeway between Boulder and Westminster will connect with the local network.
- The BRT system will provide one-way travel time savings of up to 20 minutes.

About 36 Commuting Solutions: We are a 501(c)(3) nonprofit organization founded in 1998 with the mission to enhance mobility for commuters along the U.S. 36 corridor for today and the future. Our private/public membership coalition consists of nearly 50 businesses and seven local governments between Westminster and Longmont. Together, we advocate for transportation funding and improvements to the U.S. 36 corridor. Contact us: 36commutingsolutions.org; 350 Interlocken Blvd., Ste. 250, Broomfield, CO 80021; 303-439-8517; audrey@36commutingsolutions.org.

tinue to rise. Stamps have increased every year since 2006. We think more of the same can only be on the way.

We're against closing the Harris Park office, and fear that other, small offices in our community may be next (watch out, Eastlake!). We're also against cutting back on delivery days.

But we're also sure that unless real change is made in the way that the USPS attracts and retains more customers (through better, friendlier service, improved delivery and attractive rates), the service won't be able to maintain itself as an organization.

The bottom line is the USPS must figure out a way to increase postal usage, become more effective and convenient, and find a way not to price itself completely out of the market.

THE WESTMINSTER WINDOW

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Help us fix U.S. 36

For too long, you have read about the long-range planning process pertaining to improvements to the U.S. 36 corridor and probably have wondered when will this Environmental Impact Statement (EIS) process ever end? Well, folks there is good news – the end is in sight and your involvement is needed to press for funding through a new advocacy campaign called "Help Us Fix U.S. 36." Since 2003, this EIS has been underway to define the best improvements to meet the projected traffic demand by 2035, the current state of the corridor and a set of transportation investments to improve mobility and efficiency. The EIS will be completed by November and includes a Preferred Alternative or future vision for the corridor.

Our lifeline

The U.S. 36 corridor is our region's lifeline. It supports our workforce, businesses, shopping, tourism and recreation, links our communities and is the means for transporting goods and services. A safe and reliable transportation system is essential to the health of our economy and the health of our communities. I remember then Gov. Roy Romer speaking at an economic development event about the importance of U.S. 36 and its critical role in the future of the region at the Westminster City Park Recreation Center.

The problem

America's infrastructure is aging and U.S. 36 is right there in the aging process. There are sections of pavement that are 50 years old compared to a life expectancy of 20 years. Bridges are a major concern with 10 of them rated "structurally deficient" or "functionally obsolete" by state and federal standards (we could put stimulus dollars to work here). Traffic congestion is on the increase as the area further develops and more people need to commute to their job. U.S. 36 commuters spend hours on the road in their daily commute. Demand for public transit is unmet. Every day, 15,000 commuters use Regional Transportation District services along this corridor. U.S. 36 has the highest transit ridership in the whole RTD sys-

Hits, Runs & Errors

by Bill Christopher



tem. By the year 2035, population along the corridor is projected to rise 28 percent and employment will expand by 53 percent.

The solution

The long-term plan for U.S. 36, called the Preferred Alternative, identifies a sustainable, multi-modal solution including Bus Rapid Transit (BRT), HOV/HOT lanes and a corridor-wide commuter bike path. (The commuter rail system is separate from U.S. 36 and will use the BNSF railroad trackage). The cost of these much-needed improvements is hefty at an estimated \$1.7 billion. However, there is only \$750 million available for the corridor, and these funds are not scheduled to be available until 2021 at the earliest. This is not a very bright picture.

The opportunity

Two critical funding opportunities are happening now to build a segment of the U.S. 36 plan. Without these funds, we are dead in the water for at least a decade. We need to rally around a cause to make funding happen now. Get involved by contacting your local, state and federal elected officials to urge them to support the needed improvements. Become a transportation advocate and join the coalition along with your friends and business associates. Donate to the "Help Us Fix U.S. 36" campaign, which is a grassroots effort spearheaded by 36 Commuting Solutions to raise awareness of and garner funding for these critical transportation improvements. The advocacy group is hosting a special event to commemorate near-completion of the U.S. 36 EIS that is open to the public. Come join us from 7:30-9 a.m. Aug. 19 at Westminster City Park Recreation Center, 10455 Sheridan Blvd. Please RSVP by Aug. 12 to Natalie@36commutingsolutions.org or call 303-439-8526. Get involved in the lifeline of our region, learn more about the multi-modal plans and help make a difference for the future.

Bill Christopher is former city manager of Westminster and represents District J on the RTD board of directors.

Fixing U.S. 36 is the Right and Left thing to do

By Bob Greenlee and John Tayer
Boulder Daily Camera

Posted: 08/30/2009 12:00:00 AM MDT

As one of us is an unabashed transit advocate and the other a frequent critic of RTD's FasTracks program, friends might find it shocking to see our names together in print. In truth, despite our frequent disagreements, we still maintain a respectful relationship and occasionally break bread together . . . while taking a few political jabs at one another.

When the two of us recently got together we found we share at least one thing in common: We both strongly agree that improvements to U.S. 36 are absolutely essential and every effort should be made to improve this aging transportation corridor. There haven't been any major upgrades to the old turnpike since it opened to traffic in 1951 -- over a half century ago -- despite vastly increased traffic and badly aging infrastructure!

Following over six years of study, a plan is now in place for making critical improvements to U.S. 36 that entail a mix of multi-modal investments. The plan includes added travel lanes to address serious bottlenecks, like eastbound traffic over Davidson Mesa during the afternoon rush hour. Grade separated lanes also will be added for the full length of the corridor to accommodate RTD's Bus Rapid Transit (BRT) system, carpoolers, and fee-paying single occupant drivers. Finally, the U.S. 36 investment plan calls for a bikeway that completes missing links along the corridor.

To do all that's necessary for U.S. 36, an investment of \$1.3 billion is required. Sure, Bob thinks the bike lanes are a bit extravagant and John wonders if we need so much new asphalt, but both of us agree the time to act is now. Projections indicate that by the year 2035, population along the U.S. 36 corridor will rise 28 percent and employment will increase by some 53 percent. If we don't get with the program now, there's little question that mobility along U.S. 36 will suffer even further.

You can learn more about the effort to fix U.S. 36 at the following Web site: 36commutingsolutions.org. We encourage everyone to get informed and to join us in advocating for all of the planned improvements to the U.S. 36 corridor. Your support is vitally important as we work to secure the necessary funding at the federal, state, and local levels to complete the full investment plan.

The two of us will continue to disagree about many things because we are not what you might call, identical political twins. With respect to improving U.S. 36, however, at least we travel this one road together.

Bob Greenlee was a member of Boulder's city council for 16 years and served his last 2 years as mayor. John Tayer represents the western half of Boulder County on the RTD Board Directors.

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COUNCIL COMMUNICATION

TO: MAYOR AND CITY COUNCIL
FROM: MALCOLM FLEMING, CITY MANAGER
DATE: SEPTEMBER 8, 2009
SUBJECT: UPDATE/DISCUSSION – US 36 TIGER GRANT
ORIGINATING DEPARTMENT: CITY MANAGER’S OFFICE

SUMMARY:

Attached please find a summary of the TIGER grant recently presented to DRCOG as way of background on the ongoing work effort. The application is due September 15, 2009 to the US Department of Transportation (US DOT) and all the communities along the US 36 Corridor as well as CDOT, DRCOG, RTD and 36 Commuting Solutions are providing input and assistance. This project will construct one new managed lane in each direction on U.S. 36 from Denver to Boulder (or as far along the highway as the dollars can get you). Carpool vehicles and buses will be allowed to use the lanes free of charge, while single occupant vehicles will be charged a toll that will vary throughout the day based on the level of congestion. New Bus Rapid Transit service will be provided as well as commuter bike path connections, increasing travel choices for those who rely on this commuter corridor.

The grant request is for \$100 or \$200 Million from the US Department of Transportation (US DOT) to be matched by funds from CDOT (\$25 Million) and RTD (\$25 Million) should the TIGER grant be awarded. The reference in the DRCOG write-up as to how far \$100 Million and \$200 Million will go has been changed to reflect the RTD and CDOT matching dollars. \$100 Million with an additional \$50 Million match will provide a managed lane from Federal Boulevard to Broomfield. \$200 Million with a \$50 Million match will provide a managed lane from Federal Boulevard to the Interlocken Interchange. Staff and Mayor Sisk will be available to answer any questions regarding the grant application.

ATTACHMENT(S):

1. DRCOG TIGER Grant Summary



SUBJECT

AGENDA ITEM

UPDATE/DISCUSSION – US 36 TIGER

III

1. Applicant Information

- a. The Colorado Department of Transportation (CDOT) in partnership with the Regional Transportation District (RTD), Adams County, Boulder County, City & County of Broomfield, City & County of Denver, City of Boulder, Town of Louisville, Town of Superior, and the City of Westminster.
- b. Elizabeth Kemp Herrera, CDOT Region 6 Planning Manager
 Office: 303-757-9229
 Email: elizabeth.kemp@dot.state.co.us
- c. U.S. 36 Denver to Boulder Express Toll/BRT Lanes
- d. TIGER Request Amount: \$100M to \$200M, demonstrating the provided benefits with lower dollar amounts. Total Project Cost for the Phase One Record of Decision (ROD) is \$600M.
- e. Brief Project Description: This project will construct one new managed lane in each direction on U.S. 36 from Denver to Boulder. Carpool vehicles and buses will be allowed to use the lanes free of charge, while single occupant vehicles will be charged a toll that will vary throughout the day based on the level of congestion. New Bus Rapid Transit service will be provided as well as commuter bike path connections, increasing travel choices for those who rely on this very busy corridor.

Corridor improvements identified in the preferred alternative will cost approximately \$1.3 billion. More than \$700 million is identified in the fiscally constrained long range plan for the region; however, the bulk of funding is not projected to be available until the very end of the planning period – in 2035.

Approximately \$200 million is available for the U.S. 36 Corridor from the RTD FasTracks program and the Transportation Commission approved CDOT investing \$25 million to reconstruct U.S. 36 from 92nd Street to 104th Avenue. This two-mile project will accommodate the U.S. 36 managed lanes as identified in the Final EIS so there will not be throwaway. This \$200 million TIGER discretionary grant would be invested to construct as much of the managed lane as feasible, allowing commuters to reap the benefits of the project 25 years earlier than planned.

- f. This project is included in the adopted fiscally constrained 2035 Metro Vision Regional Transportation Plan and is shown as a “regionally-funded” project.

2. Select TIGER Criteria relating to Job Creation and Economic Stimulus

- a. Show anticipated TIGER project schedule, including:
 - The US 36 Final EIS will be released for a 45-day public comment period mid-September 2009. Anticipate a Record of Decision by the end of calendar year 2009.
 - Notice to proceed for design-build project anticipated by Fall 2010.
- b. Approximately 25 percent of the U.S. 36 project is in an economically-distressed area (Adams County).

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3. Select TIGER Criteria relating to Long Term Outcomes

- a. State of good repair. If applicable, identify current condition and performance, and how the project will improve that condition and/or performance.

Pavement Condition

- CDOT uses a pavement management system to determine the optimal time for surface treatment repairs and reconstruction based on minimizing lifecycle costs. Below is a table showing existing pavement conditions within the U.S. 36 corridor.

Existing Pavement Conditions

Cross Street	Direction	Milepost	Condition
Baseline Road	EB	37.4	FAIR
	WB	37.4	FAIR
Table Mesa Drive	EB	40	POOR
	WB	40	POOR
88 th Street	EB	44.52	POOR
	WB	44.52	POOR
	EB	48.04	FAIR
Wadsworth	WB	48.04	FAIR
Sheridan Ave	EB	53.04	FAIR
	WB	53.04	FAIR
Federal Blvd	EB	54.578	GOOD
	WB	54.578	GOOD
	EB	55.35	GOOD
	WB	55.35	GOOD
Pecos	EB	56.473	FAIR
	WB	56.473	POOR

- This project will minimize the need to construct additional lanes in the future and instead manage the existing lanes through pricing. This means that there will be less pavement to maintain over the long term, and therefore lower life-cycle costs for maintenance.

Structure Condition

- Many areas of the US 36 corridor still use structures and geometry from the original construction in the early 1950s. Reconstruction would modernize the highway and provide a safer operating environment. The sufficiency evaluation conducted for the US 36 corridor shows that at least 14 existing bridges need to be replaced. The reconstruction of the highway could replace several of these structures that have outlived their planned life.

Operations/Maintenance

- Toll revenues collected will be used to pay for ongoing operations and maintenance of the US 36 corridor – a far more reliable funding source than CDOT currently has available to meet maintenance costs statewide. The dedicated funding stream should ensure that repairs are able to be made at the optimal time, thereby minimizing long term life-cycle costs.

- b. Economic competitiveness. Identify how the project will improve the long-term efficiency, reliability or cost-competitiveness in the movement of workers or goods.

- U.S. 36 is home to many thriving businesses involved in progressive research on alternate fuels, atmospheric conditions, etc. whose products and research could have profound positive impacts on life as we know it in the U.S. These businesses include the National Renewable Energy Labs

(NREL), Conoco Phillips, National Institute of Standards & Technology (NIST), National Center for Atmospheric Research (NCAR), National Oceanic & Atmospheric Administration (NOAA), Cooperative Institute for Research in Environmental Sciences (CIRES), and the University of Colorado, for example. This corridor is key to developing the new economy based on renewable energy.

- The proposed U.S. 36 transportation improvements are an example of how to develop a transportation system for the new economy. State economists believe that through the strategic development of the U.S. 36 corridor, the state should continue to outperform the U.S. economy in the foreseeable future, lead by contributions to energy and advanced technology clusters.
- US 36 is responsible for more than 16% of metro Denver's business and employment numbers, drawing workers from across the metro area and beyond
- High tech started in Boulder County within the State of Colorado (University of Colorado, Ball Corporation, federal labs, etc.). Today, hundreds of companies spawned and expanded outside of Boulder to other parts of U.S. 36 and the metro area. Now, new Transit Oriented Development is providing infill in our growing corridor.
- The U.S. 36 corridor is a technology corridor of emerging business clusters that align with the Obama administration – energy, aerospace, biotech and computer/IT.
- Managed lanes will improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers as well as expanded business access to markets.

c. Livability and sustainability. As applicable, address how the project creates more convenient transportation options for travelers; enhances modal connectivity or reduces congestion; improves accessibility and/or services for economically disadvantaged populations, non-drivers, senior citizens, and persons with disabilities; reflects the outcome of a coordinated land use/transportation planning process; and promotes energy efficiency.

Livability

- The managed lanes will extend the I-25 HOV/Express Lanes adding a total of 18 miles of preferential lanes for bus travelers.
- The lanes will connect six cities along US 36, including Denver where transfers can be made to existing light rail, regional and local buses to the Denver International Airport and employment centers throughout the metropolitan area.
- The U.S. 36 managed lanes combined with other regional and local investments will create a strong travel time advantage for buses, carpools or SOVs who choose the lanes. Existing mode share will be enhanced by the travel time savings the new managed lanes will provide. Real time information for transit riders will support rider confidence in choosing transit. Currently US 36 has the highest bus ridership in region, exceeding 15,000 patrons per weekday.
- Strong transit ridership will suffer if buses/HOVs are stuck in general purpose lane traffic.
- SOV users that choose the managed lane would realize enhanced and reliable travel time.
- According to Smart Growth America the average American who lives in an area that's walkable and has transit spends only 9% of their income on transportation, while a person living in an area that requires driving spends more than 25% of their income each month on transportation. Low income families stand to benefit the most from an improved transportation system that increases their travel options and give them better access to jobs and support services.
- The Denver area's elderly and disabled populations are growing at rates faster than the general population. According to data included on DRCOG's web site between 2005 and 2035, the

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number of residents aged 60 and older is expected to nearly triple from approximately 336,000 to 970,000. About 67,000 households in the Denver region do not have an automobile available. The percentage of people over the age of 60 in counties bordering US 36 averages 13%.

- In the current down economy, we are seeing the highest foreclosure rates and drops in value in areas that have the longest car commutes, while neighborhoods in proximity to transit and job centers are holding their value. Our communities are investing in more than 560 acres of TOD that will reduce overall driving for those who live and work in the area, while also generating substantial economic activity.
- Between December 2006 and August 2007 DRCOG and RTD hosted workshops in partnership with 36 Commuting Solutions that evaluated TOD potential along the U.S. 36 Corridor and found there was opportunity at BRT sites for higher density residential and retail infill.
- A commuter bikeway connecting our cities is part of the project we propose.

Sustainability

- The U.S. 36 Toll Express Lanes/BRT is unique in its focus on promoting alternative modes of transportation and providing choices for Single Occupant Vehicles (SOV). The priority for use of the lane is transit first, HOV second and paying SOV last, which manages corridor performance over the short and long term.
- The managed lane concept will charge a toll for single occupant vehicles who want the benefit of using the congestion free lane. The project will provide travelers with better information about travel conditions and economic incentives to make better choices about how, when and where to travel – all of which should lead to higher rates of transit use, carpooling and travelling on off-peak periods. Those changes in turn reduce dependence on oil, reduce green house gas emissions and generally benefit the environment.
- RTD plans to use clean energy technologies on BRT busses, replacing the existing fleet and retrofitting existing buses with clean burning fuels.
- Using a comparison to the two alternatives considered in the Draft EIS, the preferred alternative identified by communities and agencies results in less impacts to air quality, wetlands, and endangered species, cultural/historic resources, and households, while still providing a meaningful transportation benefit.

d. Safety. Identify anticipated reductions in the number and severity of transportation-related crashes.

- A CDOT safety analysis conducted in 2004 showed a higher-than-expected accident frequency along the entire U.S. 36 corridor when compared to similar urban four-lane highways. The *SH 36 Freeway Reconstruction Report: Safety Assessment Report for the US 36 Corridor* (CDOT 2005) provides a detailed description and the results of the safety assessment. The report suggests some accident reduction is possible with improvements to the highway. From January 1, 1999 to December 31, 2001, a total of 2,232 accidents were recorded in the U.S. 36 corridor (CDOT 2006). Eight of these accidents resulted in fatalities. The accident history shows a rate of about 745 accidents per year. Reconstruction of the highway would allow new facilities to be built to current design standards, which would improve operations and provide higher levels of safety. Additional research shows that roadway expansion typically results in a 20 to 25 percent accident reduction for lane expansions like this one.
- Many areas of the U.S. 36 corridor still use structures and geometry from the original construction in the early 1950s. Reconstruction would modernize the highway and provide a safer operating environment. The sufficiency evaluation conducted for the US 36 corridor shows that at least 14 existing bridges need to be replaced. The reconstruction of the highway would replace several of these structures that have outlived their planned life.

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- Along short sections of US 36, the vertical alignment was measured as “not to standard,” with grades of 5 percent or greater. There are several locations where stopping sight distance, decision sight distance, and highway cross section were also measured as “not to standard.” Several instances of lane imbalances also exist in the corridor. A lane imbalance occurs when the number of lanes approaching and the number of lanes leaving an interchange are not equal to each other or when the numbers of lanes does not remain relatively consistent through a corridor. For example, some portions of US 36 have two lanes, some three, and some four. The existence of through-lanes and acceleration/ deceleration or auxiliary lanes on US 36 is likewise inconsistent, causing disruptions in the flow of traffic. The Existing Conditions Inventory and Deficiency Analysis – Draft Technical Report (URS 2003) provides a detailed description of roadway deficiency ratings.
- 2005 TRIP Report titled “Heartburn Highways” notes that US 36 is one of the top congested freeways and has issues with safety – this project will address these concerns.
“TRIP has identified and ranked the 50 segments of roadway throughout Colorado that cause the greatest stress to the state's motorist because they have the highest levels of congestion, the highest occurrence of fatal and serious traffic crashes and significant pavement deterioration. This list is based on a combined index that measures and ranks safety, congestion and pavement condition rates on routes throughout the state. The Boulder Turnpike was tops for both congestion and safety reasons.”

4. Select TIGER Secondary Criteria

a. Identify non-federal funding sources and amounts

- \$25 million CDOT surface transportation improvement funds
- \$200 million RTD FasTracks funds
- \$5 million local government match